

Dec-06-99 12:17pm From:ZIFFREN

T-708 P.02/83 F-034

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December 6, 1999

Mark Litvack
Chief Counsel
Motion Picture Association of America
15503 Ventura Blvd
Encino, CA 91436

Dear Mr. Litvack:

I would like to thank you for selecting Cinea to provide a review of the Linux development archives relative to the DVD CSS development activities. As of this point we have completed reviewing approximately 25% of the material which your office forwarded to us. I anticipate that we should complete our full review of the materials by 12/17/99. Note that I have had access to the DVD Video specifications in the past, but have never seen, nor had access to, the CSS specifications.

As you requested I have outlined below the involvement of Derek Fawcus in the Linux DVD development effort, specifically the efforts to enable decoding of CSS protected content. Please note these results are preliminary and are based only on a partially completed review of the Linux DVD development archive material which your office acquired and forwarded to Cinea. Specifically the June through October LinuxDVD archives, the June through July Livid-Dev archives and portions of the August Livid-Dev archive.

It is important to note that breaking CSS involved two distinct steps. The first step was determining how to initiate a secure conversation with a CSS enabled DVD drive. This step is necessary before the drive will release CSS encrypted content for reading by a host computer. The second step is decrypting the CSS encrypted content.

This first step was largely completed by late July based on the release of code by a Johan Addis on 7/13/99. In his postings, Mr. Addis claims to have had this portion of the CSS system broken since the beginning of 1999. Mr. Addis never discloses why he had been working on this effort, but does say it was accomplished using Reversing Engineering of a PC based DVD playback program. Once Mr. Addis released the code, Mr. Fawcus was a principal participant in the debugging, 'c' conversion and testing of this drive enabling code. Essentially Mr. Addis provided the blueprint for the first step and Mr. Fawcus was one of the primary builders. No additional information on Mr. Addis is available at this time.

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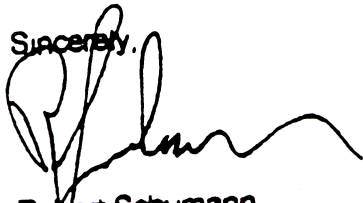
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Once the first step had been completed several of the participants in the discussion groups, including Mr. Fawcus, focused their attention on the breaking of the content keys themselves. This second stage was just beginning in earnest for this group in August and my review has not yet proceeded sufficiently to fully characterize this effort, although Mr. Fawcus appears to have been heavily involved.

To summarize, Mr. Fawcus, as he is known in the postings, was an active participant in the work on implementing DVD on Linux. During the period of postings examined, Mr. Fawcus was involved in the writing, releasing, and testing of various parts of DVD playback, including the code which allowed for the partial access to CSS protected content. Based on the materials available, it appears that Mr. Fawcus had no direct access to CSS or DVD specifications in this effort, although in a July 31st posting he mentions that he got a "major hint" from somebody on how to decode the VOB files (the second step):

Sincerely,



Robert Schumann
President and CEO

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